NEW ENGLAND FARMER.

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DISEASE OF CATTLE.

Report on a disease afflicting Neat Cattle, in Burton, (N. H.) read before the New Hampshire Medical Society, June, 1822; by JAMES F. DANA, M. D. *Prof. Chymistry, Mineralogy, &c. Dartmouth College.*

At the last meeting of the Society, I had the honour to be appointed to visit the town of Burton in this State, and inquire into the causes of a disease to which neat cattle are there subjected; and I have now the pleasure of submitting to the Society the result of the observations which have been made in consequence of this appointment.

That part of the town in which the disease is most prevalent, is surrounded by lofty hills and mountains; the highest part of which is a very elevated point, called *Corway-peak mount*, and is visible from a great extent of country. The predominant rock of which these hills are composed is Granite—a soft decomposing variety in which the crystals and grains of feldspar, are very large and are suffering a rapid decomposition, by which the whole is disintegrated and broken down. The loose stones consist principally of rolled masses of granite, quartz, feldspar, and some specimens of hornstone; a bed of bog ore of iron is also found here. The soil of this place is fertile, and is such as we should expect to be produced by the decomposition and disintegration of Granite rocks, viz. a sandy loam mixed occasionally with coarse gravel. No peculiar appearances were noticed in the vegetation; the usual crops raised by the farmer, grow in Burton as in other places under a similar culture and management: and probably the town would be a flourishing agricultural place if *neat cattle* could be kept and raised there. The fact is sufficiently established that young neat cattle cannot be raised there, and that cows and oxen cannot be kept there for a number of years without being afflicted with a singular and fatal disease; and it is not a little remarkable, that horses and swine have never been attacked by the complaint. Cattle are more liable to the disease at some seasons of the year than at others, and are usually attacked by it at the close of winter. The symptom which marks its commencement and progress, is a loss of appetite; the animals refuse hay, grain, and salt; they become feeble and much emaciated; and obstinate costiveness accompanies the disease, but the abdomen becomes *smaller* than in health; the abdominal muscles are contracted towards the spine, and the whole abdomen is diminished to one third of its original bulk. After these symptoms have continued an indefinite time, a brisk *scouring* comes on, and the animals fall away and die. For this complaint, which is very general among those cattle which have remained two or three years in the place, no remedy has been used by the inhabitants with marked benefit and uniform success; the cattle recover only by driving them away to some other place. A satisfactory cause for the disease has not yet been ascertained, and consequently a rational mode of cure has never been adopted. Neglecting the romantic and idle tale of the dying curse pronounced on this place by a murdered Indian, we are to search for the cause of the disease in the food which the cattle eat, or in the water which they drink.

The fact that cattle are seized with the disease late in the winter seems to point to the food as a source of the evil; and it is well known that certain plants have proved prejudicial and fatal to cattle. The *cicuta virosa*, or water hemlock, was found by Linnæus to be the cause of a disease afflicting the cattle in Norway; and here goats and *swine* were exempted from the disease; but this plant was not observed in Burton, nor was any other vegetable discovered here which does not grow in other places in the same latitude; and hence we do not believe that the disease is caused by the food. In confirmation of this opinion, I may adduce the fact that the hay produced in this place, causes no disease in cattle which are kept on it in the neighboring towns; whereas hay which is brought from other places into Burton, does not appear to prevent the complaint.

It has been sarcastically suggested, that cattle died at Burton because there was not a sufficient quantity of hay produced there to keep them; but this suggestion appears to be as unjust as it is ungenerous. Hay is produced in such quantities as to be more than sufficient for the cattle. The result of my inquiries on this subject is, that there is a sufficient quantity of hay produced there for the use of all the stock, but that it does not contain any vegetable substance which is prejudicial to the cattle, and which may be considered as a source of the disease.

The examination of the water from various places in Burton offers a more satisfactory result; but there are no external marks which indicate that the water is unhealthy—no sediment is found, no incrustations appear on the sides of the rivulets and springs; but on the contrary the water is clear,* transparent and colorless, and of a pleasant taste. From such properties, I despaired of detecting any substances in it by the application of chymical agents, but was happily disappointed on making the examination. A portion of water from a brook, to which the cattle have free access, was first examined. *Tincture of soap* produced cloudiness; *oxalate of ammonia* produced a slight cloudiness; and *nitrate of silver* produced a similar effect.—No change occurred on the addition of *Barytic water*, solution of *Prussiate of potash*, or *tincture of galls*, or of *turmeric*. It follows from the action of these agents that the brook water, unlike the water of most brooks, is an *hard* water and contains some saline body.—From the action of oxalate of ammonia, we infer the existence of lime; and nitrate of silver proves the existence of *muriatic acid*; the water is then a weak solution of muriate of lime. Having ascertained the existence of minute portions of muriate of lime in brook water, an examination was made of the water procured from other sources; and water from *eleven* other places, remote from each other and from the brook abovementioned, was examined, and the same effect was produced by the same agents. The effect was more perceptible in some instances than in others, and usually greater in water from *wells* than in that from other sources. The water from two wells in particular afforded abundant precipitates with the oxalate of ammonia and nitrate of silver. The only beast laboring under the disease while I was at Burton, drank daily from one of these wells.

The continued use of a weak and very dilute solution of muriate of lime, may from its known properties, produce the effect now ascribed to it, and be the cause of the disease. Muriate of lime, it is well known, is employed as a medicine, and, like other saline medicine, acts more powerfully on the general system in *small* doses *largely* diluted, than in greater quantities, and in a more concentrated state. In some diseases of the glands, it is said to have been employed with advantage, and when first administered, improves the appetite and general strength. The latter effect is very evidently produced on cattle when first pastured in this town. If previously thin and emaciated, they speedily become fat and appear better than cattle ordinarily do, during the first season they are pastured in Burton.

It may with propriety be asked, why *horses* and *hogs* escape the disease, if it is produced by the water? A satisfactory answer is derived from the fact that horses are not suffered to remain a long time at home; they are continually absent on journies, and probably in most instances take as much water from other sources as they do from the wells and springs on the farms to which they belong. Hogs take but small quantities of water, and from the mixed and heterogeneous kinds of food given to them, they must frequently take such saline substances as will counteract the effects produced by the minute portions of *muriate of lime*.

If the disease arises, as is supposed, from the saline contents of the water, we can easily explain the fact that its attacks are most frequent in the winter. It is then that they usually receive water from wells, which are proved by experiment to be most strongly impregnated; and then also springs are generally low and consequently contain more saline matter: nor does the food in winter tend to counteract the effect of the water, by keeping the bowels lax, which is a well known effect produced by summer and spring food.

The disease, to which the cattle in Burton are thus subjected, has been a great obstacle to the prosperity of the town; and it will probably continue to have this effect, although without doubt it may be prevented by proper attention and management. Some persons, residing in Burton, have for several years past given to their cattle during the winter season, a certain kind of *mud*, and, as they affirm, with some benefit. This mud is found on a meadow, and during the summer, it is collected for use; it is made into balls as large as an ordinary potatoe, and forced down the animal's throat; by it the

* It is a common remark that the waters of Burton are remarkably clear; probably their refractive density is increased by the saline matter they contain.

tonic effect of the muriate of lime is prevented, and the bowels are kept lax. I visited the spot where the mud is procured.—A spring issues from the place and the water brings with it a greyish white matter which is deposited in the rill leading from the spring. This whitish substance is the matter in question. After being heated to redness it becomes snow white; when digested in an acid, a slight effervescence occurs, a portion is dissolved, and the remainder has the character of fine white silicious sand; the portion dissolved in the acid was found by appropriate tests to be *carbonate of lime*. The effect of this substance cannot be explained on chymical principles, and doubtless depends on the general principles, of the effect of laxatives in counteracting the actions of tonics.

Having embraced the idea that this disease arises from the small portion of muriate of lime dissolved in the water, I recommended to a number of the inhabitants who were assembled for the purpose of assisting me in my inquiries, to make use of *weak ley*, or *ashes*, or *soap suds*, as a remedy, or rather as preventives. Either of these substances, from the carbonate of potash they contain, will decompose the muriate of lime, and carbonate of lime and muriate of potash will result from such decomposition. Now both these substances, if not quite inert in the small quantities in which they would be produced, will act as purgatives; and as a confirmation of the general principles advanced in this paper, I was informed, on recommending *soap suds*, that the only cow which was ever raised in Burton and escaped the disease, was in the habit of frequently drinking soap suds from the tubs which contained it; and that it was consequently left for her use after family washings. It is not a little remarkable that the inhabitants did not avail themselves of the information to be derived from this hint.

A person who formerly lived in Burton brought water from a spring situated at a distance from his house, for the use of his cattle, and they were found to thrive much more, and with greater certainty to escape the disease. Why he was induced to use this water I know not; but on examination by re-agents, it gave indications of containing *very small* quantities of muriate of lime; much less quantity indeed, than in any other water submitted to examination.

These facts and observations are now submitted to the Society, with the hope that the investigation, conducted under their auspices, may not prove wholly uninteresting and useless.

ALBANY COUNTY AGRICULTURAL TRACTS.

By the politeness of J. Buel, Esq. we have received a pamphlet, with the above title, containing much valuable matter, calculated to aid the American Farmer in the principal and staple concern of all civilized societies. The pamphlet is published by the Executive Committee of the Albany County Agricultural Society, who have "resolved to publish, annually, a pamphlet of about 48 pages, to be distributed at their annual fairs, among the members of the Society. It is believed," they observe further, "that this will essentially aid the progress of agricultural improvement; and as practical information is to be preferred, communications of this kind are respectfully requested for the subsequent numbers. They may be addressed to J. Buel, Corresponding Secretary. The work will be so paged and arranged that six numbers will form a volume of 288 octavo pages."

The articles which compose the first number consist partly of original matter, and in part of judicious selections. We shall, from time to time, give such extracts, notices and abridgments of the work as we believe will be most beneficial to our readers, and best comport with the patriotic and philanthropic views of the publishers.

ON THE CULTURE OE TURNIPS.

Sands and sand loams are peculiarly adapted to the culture of this root. The county of Norfolk, which is one of the most improved agricultural districts in England, has acquired its high reputation, in a measure, by its turnip crops. Cattle are winter fattened upon them invariably, with the aid of straw, or sometimes a little hay. The soil of that county was very similar, originally, to the pine district between the Cahoos and Coeymans. But our hard winters prevent our using this root with English economy. *There* they are left in the field, and drawn daily as they are wanted. *Here* they must be housed or buried, before the frosts set in. Nothwithstanding this objection, I am satisfied, from four years' experience, that they may be cultivated by us with great profit, as a *cattle food*, particularly the Swedish sort, or ruta baga.

The flat turnip, of which the green and red top are varieties, is raised with very little trouble, and with me have been invariably a second crop. I have sown them after wheat, rye, peas, and flax, with a single ploughing, with and without manure, with uniform success. I have sown from the 20th July to the 10th Aug. broadcast, at the rate of one pound of seed to the acre—generally hoed them once; and the medium crop has been about 200 bushels per acre. *The later turnips are grown, the better they are for the table.*

The ruta baga requires more labour in raising, and better compensates for it. I plough twice and harrow; about the 1st July, the ground is thrown into three feet ridges, by turning two furrows back to back. The manure is then drawn out, and thrown with a shovel into the furrows, about six rows being dunged at a time. The manure is covered, by reversing the ridges, as soon as practicable; and when the whole field is finished, a light one horse roller is passed over lengthwise, which flattens the ridges and pulverises the lumps. The seed is then immediately dibbled in one foot apart. A man will make the holes, and two boys, of 10 or 12 years old, will drop the seed, and cover two acres a day. One to four seeds are put into each hole. I prefer the dibble to the drill, on account of the greater facility of clearing the crop, and because a dibble can be made in two hours by any farmer, and consequently costs nothing. When the plants are well up, I pass the cultivator between the rows, and hand hoe the ridges, for which the skim hoe is far preferable to the common hoe. If the ground is not very foul, they are as easily hoed as an equal quantity of Indian corn. As soon as the roots are as large as a goose quill, I thin them so as to leave but one plant in a place, and fill up vacancies by transplanting. After this, the cultivator is passed through them once or twice, and the weeds, if any, on the ridges, taken out with a hoe or the hand. The product has been from 400 to 600 bushels. To preserve the roots, dig about one foot deep upon the side of a hill, leaving the bottom inclining, and sufficiently broad each way to be able to pile in the space, in the form of a cone, 100 bushels. Place the roots in it, and bring the top to a point as far as practicable. Cover with straw, and then dirt. They will bear considerable frost without injury. Take care to dig a trench round the mound to turn off the water. In March, or perhaps February, you may break through the frost, and take out roots, lay them on your barn floors, and cover them with hay or straw; from whence they may be fed to cattle.

The ruta baga is fed without cutting, to neat cattle—a bushel a day, without straw, is enough for a milch cow. To fat cattle, they may be given in greater quantity, though never so many as to occasion a continual looseness. Hogs will feed and fatten on them; cut small, they are remarkably fitted to fatten sheep; and the horse, once accustomed to them, will prefer them, to his grain. For all animals, they are improved by steaming or boiling. In the north of England, it has been stated, that stage horses are kept upon steamed ruta baga, without grain. A gentleman in Dutchess wintered more than fifty hogs upon them thus prepared, and the swine did well.

My experience with the globe and Scotch yellow turnips, is not sufficient to enable me to speak satisfactorily of their culture; but I have both kinds growing luxuriantly.

J. BUEL.

J. Alexander, Esq.
Sec'ry of Albany Co. Ag. Society.

ON THE CULTURE OF MILLET.

Millet is cultivated both for grain and fodder. If exclusively for the latter, it is cut as soon as it attains its growth, before the grain begins to ripen; if for both, as soon as the major part of the seed is ripe,—otherwise the birds will eat and waste a great portion of it. The stock and leaves remain green and succulent, even when the seed is all ripe. The best way to harvest the crop is, to cut it with a sickle or cradle; and as soon as it is sufficiently dry, bind it in small bundles, thresh it immediately without unbinding the sheaves, and use the straw for winter fodder. It improves the latter to have it sweat in the mow. The product is from ten to forty bushels in seed, and from one to four tons in fodder, according to the quality and cleanness of the land. The seed is stated, by gentlemen who have made accurate experiments, to be equal to Indian corn for fattening hogs; and the stock or straw is preferred by neat cattle to clover. The objection to this crop is, that it is an encourager of the growth of weeds, from its slow growth in the early stage of its vegetation. The ground should be clean, and in good heart.

I sowed millet this year, at four several times. The first, 23d April, which was harvested about the 1st August: the second, 27th May—harvested 21st August: the third, 1st June—harvested 10th September. The crops were all good. When intended wholly for fodder, I think it may be sown as late as the 10th July. From my experience in two years, I would recommend that the ground be ploughed early, that the seeds of weeds may vegetate; that the ploughing be repeated at intervals, and the crop be sown from the 1st to the 10th June. Cut entirely for fodder, it is a very nutritious

food. Sow from 12 to 16 quarts to the acre, and cover the seed with the harrow.

There are five species of this grain spoken of in the Domestic Encyclopedia, three of which I have had growing in my garden, this year, viz.

1. The *panicum*, or common millet, which is grown extensively in India, and of which it is a native.

2. The *panicum germanicum*, cultivated extensively in Germany and the South of Europe, where it is hulled in mills adapted to the purpose, and thus prepared, is used extensively for puddings, &c. Either of these kinds will do for field culture, and they are believed to be varieties of the same species.

3. The botanic name I have not ascertained, but in common language the third species is called the *chocolate millet*, from the circumstance of its seeds, prepared like coffee, making a beverage similar to chocolate. It grows similar to broom corn, and the grain is black.

J. BUEL.

J. ALEXANDER, Esq.
Sec'ry of Albany Co. Ag. Society.

From the Worcester papers of Wednesday.

Believing that an essential improvement might be made in the breed of Swine in this vicinity, I have turned my attention to this object. I have bred from the first quality of our native stock; but have found the produce variant and uncertain in form, size and propensity: some improved, and others deteriorated. I have crossed with more reputable breeds; but did not obtain that fleshy form and disposition to fatten upon light keeping, most valuable to farmers who supply the market, and families who supply themselves.

In 1820, I examined the pens of Mr. John Reed, of Roxbury, who, by the agency of Col. Pickering, had procured a breed from England. As he was raising and fattening upon a large establishment, having, as estimated, 13 tons preparing for market, I had an opportunity of viewing them in their various stages. From their appearance and his account of them, I was satisfied of their excellence, and obtained the kind. They may be seen in possession of Capt. Munroe, Mr. Butman, Maj. Burt, and Mr. Rufus Porter. One of the kind was exhibited at our last Cattle Show by Mr. Gleason, who obtained the first premium.

It being suggested by the Committee on Neat Stock, the last year, that the breed might be improved by crossing with a coarser kind, I wrote to Mr. Reed on the subject, and received the following statement:—"I have often tried the experiment of crossing with a coarser breed of hogs, and as often found my hogs to degenerate; but when I have crossed with small-boned hogs, it has answered well. My hogs are of the Bedford breed, so called in England; and experience has proved, to my satisfaction, that this breed is far the best that has been introduced into our country. They are quiet in their nature, fat easy and with little expense or trouble. I have had some weigh, at 12 months old, about 340 lbs.; and a considerable number, at 18 months old, 400 lbs."

I have distributed two litters of the kind, and have the third now ready for disposal.

O. FISKE.

Worcester, Oct. 28, 1822.

From the American Farmer.

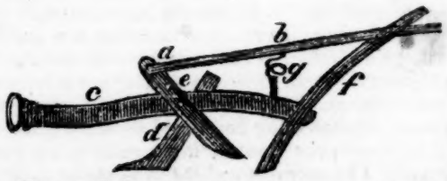
A PLOUGH CLEANER.

Downingtown, Pa. 7th Month 14th, 1822.

Respected Friend,

I have received thy acceptable letter, and really wish that I could add to the merits of thy work, by "frequent mental contributions," as thee desires me to do. But I feel great delicacy in venturing any remarks among the able productions of thy correspondents. And I know so little of the theory of Agriculture, that my observations must necessarily be confined to a few practical matters, such as might occur to any one who has been raised as a plain farmer.

I will, however, now give thee a description and drawing of an appendage to the plough, which I have used for several years, and found very convenient; it is a "plough cleaner." I very recently exhibited the contrivance before the Philadelphia Agricultural Society, and it was approved by their Committee on Implements.



The staff B, rests towards one end on the coupling round of the plough handles; at the other end it has a mortice, A; to receive the upright E; they are connected by a pin, so as to work like a hinge.

The upright E, is placed three inches before the coulter D, and joined to the beam, C, by a screw bolt, which may be passed through either of the *three holes* in the upright, so that its range can be adapted to the depth of ploughing.

The front edge of E is made a little circular, to prevent its acting as shears; G represents a circular thin steel spring, screwed on the beam and tied with a string to the staff, B. The whole contrivance is placed on the land side of the plough.

The ploughman, when he wishes to use it, grasps the staff with his left hand, and drawing it backwards causes the lower part of E to advance and rid the coulter of whatever had collected about it. The spring, G, will then restore the upright and staff to their former positions, ready to be used again.

I am with much respect thy friend,
JOSEPH KERSEY.

From the Village Record.

The following communication from Mr. Sharpless, of Downingtown, is worthy of attention. The experiment for the preservation of Peach trees from the worm, we earnestly recommend to those who have the means of trying it; and we shall be obliged by being informed of the effect. We shall also esteem it a favor if any one will give us information how to preserve the Morella cherry from the fly which is so rapidly destroying it. Mr. Sharpless has our thanks for his note; we hope he will continue his observations and give us the result.

Downington, Pa. 10th Month 10th, 1822.

Esteemed Friend,

I had observed to a friend, that I thought it a pity that the Peach, which was so highly esteemed in its season for its agreeable flavor as well as wholesomeness, could not be cultivated with that success they formerly were.

He remarked that he had heard of an accidental discovery which had been made to prevent or destroy the worm.

A Fuller who had been colouring cloth with the shells of walnuts—after having extracted the colouring property from them threw them out by the root of a Peach tree which stood near his Mill, it appeared to be on the decline, the consequence was that the tree revived and grew luxuriantly; this induced him to suppose that the shells contained something destructive to the worm, he therefore applied them to other trees with equal success.

As it is now the season for gathering the Walnuts, I have thought it right to communicate this information to the public that the experiment may be made.

I have discovered that the worm which has injured our Peach trees, like the Hessian fly has passed from East to West. I was in the Redstone country 22 years ago, the trees then, had not been injured by them—about 12 years after, was there again, when the trees were almost all destroyed; and for 15 or 20 miles West, beyond that they were fine and flourishing—7 years afterwards passed through the western part of the state into Ohio, found the worms had progressed westwardly as far as Mt. Pleasant, and but a few miles beyond; this was 3 years since, from hence I concluded that the fly which generates the worm moves on a few miles every year. This I think is the case with the insect which has within a few years affected the Morella Cherry trees, which are now nearly all destroyed. The first I saw of their effects on those trees, was in the neighborhood of Germantown, not more than 7 years ago, I think it was 3 years before they reached this part of the country.

From the Providence Journal.

Rhode-Island Silk.—Isaac Barker, Esq. of Middletown, in this state, now in this town, wears a very handsome silk vest, which was wholly produced and manufactured on his own farm. He has made silk for three or four years, commonly about thirty pounds a year, when prepared for spinning, and, we are happy to learn, finds it a profitable business, which he thinks may be extended with ease and advantage. We doubt not, the farmers of the state might easily make enough of this valuable article to supply our own consumption. Thus, one after another, are the resources of our country brought into view, and rendered valuable. The time was, when it was thought hardly practicable to procure a woollen hat, of domestick manufacture. The time may be, when we shall export silk stuffs, as we now export cottons, by bales and cargoes!

An extensive establishment for repressing Cotton is now rising at Mobile. The building is 226 feet in front, by 130 deep. There will be, exclusive of horse presses, a powerful Hydraulic Press, which is calculated to press 270 bales a day. There are to be two fire engines attached to the premises; and four wells will be excavated on the ground. The proprietors of this establishment are Messrs. Lepetre & Townsley. The expense of the undertaking it is calculated will be about 50,000 dollars.

Statesman.

FACTS AND OBSERVATIONS RELATING TO

AGRICULTURE & DOMESTIC ECONOMY.

PROFITABLE AND RESPECTABLE EMPLOYMENT FOR YOUNG MEN.

Extracted from an "Address of the General Committee of the Board of Agriculture, for the State of New-York, to the Officers and Members of the County Societies."

"To those resolute young men, who, having discovered that there is no longer room for them in the professions and in commerce, and are not afraid to look to the ample bosom of nature for their support, the committee would advise, that, having completed their education (for education is a great protection and solace in the indolent hours of the country) they place themselves with some opulent farmer, for three years, to learn the practical and fundamental principles of his art. These they can learn at his expense, and can repay him for his care by their industry and fidelity. At the expiration of that period they can, if they have a moderate capital to begin with, establish themselves with great prospect of success. Some capital, however, is necessary; to own a bare farm and nothing but that, is only an embarrassment of a different kind; a moderate capital is essential to put it in operation and make it productive. It is the want of that capital which has caused agriculture, as an art, to be so long stationary in this country. The accession of every intelligent family and person to the country is a substantial acquisition. By multiplying and spreading intelligent persons over the face of the state, the condition and happiness of society will be rapidly improved; and experience will teach them, what it has already taught to others, that it is not only possible to be truly contented in the country, but to have no wish for change."

TO PREVENT BEES FROM BEING DESTROYED BY THE WORM.

Set each corner of the hive on a piece of wood about an inch square and a quarter of an inch in thickness. This elevates the hive a little and prevents the deposits of the eggs which produce the worm, and which are always placed where the edges of the hive come in contact with the bench.—*Amer. Farmer.*

TO PRESERVE CATTLE FROM DISEASE IN THE WINTER.

When cattle are kept out in the winter, it is recommended as a useful practice to rub some tar at the root of the horn, which prevents the wet from getting between the root and the skin, and it is said contributes to preserve the health of the animal, and to keep it free from various diseases to which it may otherwise be liable.

Ibid.

AGRICULTURE, COMMERCE AND MANUFACTURES DEPENDENT ON EACH OTHER FOR PROSPERITY.

Extracts from Mr. Law's Address to Prince George's Agricultural Society in Maryland.

"That consumers for our agricultural products should increase with augmenting food, &c. you will acknowledge is most desirable, and that the consumers should be rather at home than abroad, as they must be adding to the wealth of the nation by their products of industry, given in exchange for the products of the soil, will, I trust, be granted; for double industry is thereby obtained, and our country is rendered independent of foreign nations for clothing, furniture, iron mongery, crockery ware, glass, &c.

"An apprehension I am aware is prevalent, that foreign commerce will be diminished by manufacturing for ourselves; but much deliberation makes me conclude that it will increase, as well as the coasting trade. The only truly desirable commerce consists of the exchange of our indigenous products in a raw or manufactured state for the products of foreign climes, and it is evident that we shall bring back more silk, coffee, sugar, tea, spices, wine, &c. as increased industry enables us to export more.

"It is proved by Mr. Colquhoun, that poor rates are heavier in a country merely agricultural, than in one whose inhabitants are merely manufactural. The reason is obvious. When the head of a family is sick or dies, who is a cultivator, his wife and children become paupers; but if he be a manufacturer, his wife and children can be employed in factories. Humanity and patriotism therefore dictate, that a nation ought not to be merely agricultural.

"In sea-port towns manufacturers are particularly desirable, as they support the wives and children of absent sailors. Poverty causes crimes and vices, and I have observed that there were fewer vagabondising boys, and fewer wretches in jails and poor houses, in manufacturing sea ports. The moralist and statesman must therefore be advocates for this last state of society."

In order to make butter in cold weather, it is recommended to pour as much boiling water into the cream as will bring it to the temperature of milk just from the cow. Cream so managed, says a writer in the American Farmer, will require very little churning, and no other disadvantage accrues, except that the butter will be white for a day or two.

WASHING RENDERED EASY.

For the use of private families, where linen is dirtied by perspiration or grease, it will be of great service towards rendering it white to steep it for some time in a clear liquor, made by mixing one quart of quick lime in ten gallons of water, letting the mixture stand 24 hours, and then using the clear water, drawn from the lime. After the linen has been steeped in this liquor, it should be washed as usual, but will require much less soap to be used.

Rees Cyclopedia, art. Bleaching.

WARM WATER FOR COWS.

It has been said that cows will give the more milk in cold weather in consequence of having the water which they drink made a little warm.

MODE OF PRESERVING POTATOES AND FRUIT.

Put the potatoes into barrels, and fill up the numerous crevices with fine sand, which will exclude the air, and preserve them from injury. This method may likewise be applied to apples, pears, &c. If they should be penetrated with frost, they will sustain no injury if the frosty particles are extracted by putting them in cold water.—*English Magazine.*

Boiling corn for hogs is recommended, and there can be no doubt but it will afford more nourishment when cooked, than when raw. It is thought to be best to boil it on the cob, which will add to the nourishment afforded by the grain. Steaming would doubtless answer the same purpose.—*Plough Boy.*

SPOILED POTATOES.

When it happens that a parcel of potatoes are so far destroyed as to be unfit for food of either man or beast, even after they are reduced to the consistence of soft soap, by frost or wet, there are two ways by which they can be rendered useful, either in the manufacture of nitre, or converted into a rich manure.

To make nitre, beat up the spoiled potatoes with dry quick lime, mixed with ashes from the hearth. Let the mixture be turned over, sprinkled with water, and exposed to the atmospheric air, for the further absorption of azote. The formation of nitre may be ascertained by washing a little of the mixture in water, and moistening therewith a slip of brown paper, which will become match paper when dry, and burn with a force proportionate to the strength of nitre. When sufficiently strong the whole mass can be washed, the liquid boiled down for chrystalization, and the sediments thrown to the dung-hill; or the brine can be used with common salt for the preservation of meat, for pickling wheat, or any other purpose to which saline preparations are generally applied; or will be found particularly useful for washing dirty clothes.—*Minerva.*

WEEPING WILLOW.

A writer in the American Farmer has the following observations:—"From a remark I met with many years ago, that 'in Priestley's opinion, the Willow was the greatest absorbent and corrector of bad air,' I have planted them all round that part of my rice field, which is nearest my dwelling and negro settlements.—My people are very healthy, and although I move from hence to Smithville, ten miles down the river, six weeks or two months later than my South Carolina friends do from their rice plantations, and later than any one in the neighborhood of Wilmington, who has a summer residence—and although I visit it almost weekly through the fall, I experience no inconvenience. In my 66th year, I do not recollect having kept my bed a whole day in my life."

PAINTING WALLS TO MATURE FRUIT.

Mr. Daws, of Slough, near Windsor, (Eng.) has made the experiment of painting one half of a wall black that was covered with a vine, and leaving the other half in its common state. That part of the vine which covered the black wall, ripened the grapes earlier, and yielded about three times the weight of fruit that the other produced.—*Pomarium Brittanicum.*

CATTLE STALLS.

Extract from Hon. Timothy Pickering's Address to the Essex Agricultural Society.

The common cattle stalls of our country are so ill contrived and so straitened in their dimensions, that the cattle are constrained to lie down, in part, in their own dung. This dries and forms a thick coat on their hind quarters, from which they are not relieved till they shed their hair in the spring. They are thus rendered *uncomfortable.* To be uncomfortable is to suffer some degree of *pain;* and no one will suppose that animals in *pain* can *thrive*, or *preserve their plight*, with the same food, equally with others perfectly at ease. Even hogs, tho'

prone to wallow in the mire, in warm weather, are always pleased with a dry bed, and thrive best when kept clean.

BEST SHAPE FOR CATTLE.

To the question, "What is the shape for feeding well with little food?" Mr. Knight, (a gentleman in England, eminent for his knowledge and accurate observations relative to plants and animals) answers, "The more deep and capacious the chest, and the shorter and lower any animal is, relative to its weight, the better adapted it will be to live and fatten upon little food; the more labor it will also go through; and I have always found the most short legged oxen to be the best laborers. Mr. Marshall also observes, in his Rural Economy of Gloucestershire, that the best laboring ox he ever saw, had the shortest legs."—*ibid.*

SWEET APPLES, &c.

"After providing a due proportion of apples for the table, and the ordinary purposes of cookery, I do not hesitate to express my opinion, that for all other uses, sweet apples are entitled to the preference. The best cider I ever tasted in this country, was made of sweet apples. They afford also a nourishing food to man and all domestic animals. What furnishes a more delicate repast than a rish sweet apple baked and eaten with milk?—I recollect the observation made to me by an observing farmer, before the American revolution, that nothing would fatten cattle faster then sweet apples. Mentioning this, a few year since, to a gentleman of my acquaintance in an adjoining state, he informed me, that he was once advised to give sweet apples to a sick horse. Happening then to have them in plenty, the horse was served with them, and he soon got well: and continuing to be fed with them, he fattened faster than any other horse he had ever owned (and he had owned many) that was fed with any other food.

"Mentioning to the same gentleman, what I had long before heard, that good molasses might be made of sweet apples, he confirmed the fact by an instance within his own knowledge: and further expressed his opinion, (and I have not known a man whose practical judgement was entitled to more respect) that it would not be difficult, by forming orchards of sweet apples, to supply molasses for the general consumption of the United States. I have never tasted any sweet apple molasses; but I suppose it has not (nor has honey) the rich sweet of molasses from the sugar-cane; yet, for family uses in general, it would be a useful substitute for the latter. The process in making it I suppose to be very simple. The apples being ground, and the juice (or cider) expressed, at the cider-mill, it is immediately boiled, (that is, before any fermentation takes place) and the scum being taken off as it rises, the boiling is continued until the liquor acquires the consistence of molasses.

"Sweet apples are or different degrees of sweetness. Those of the richest kinds should be chosen for the purpose of making molasses. But in grafting, the cions should be taken (as they ought to be for all kinds of fruit) not from old, worn out trees, but from those whose originals are in full health and vigour. For it has been satisfactorily ascertained in England (and proofs of it are not wanting in our own country) that fruit trees have their infancy, (springing from seeds) youth, maturity, and old age; and that when they have reached this last stage, it is in vain that attempts are made to continue them. Or if the cions take, and grow for a few years, they are unproductive, and soon decay. The reason is plain; every cion is a part of the tree from which it is taken; and if this be in a state of decrepitude, so will be the cion; and although grafted on a youthful, thrifty stock, it will be of no avail."—*ibid.*

TO MAKE A PICKLE OR BRINE FOR BEEF.

To eight gallons of water add half a pound of salt petre, one pound of brown sugar, and one quart of molasses, with as much fine salt as will make it float an egg light, taking care that the salt dissolves lest it be too strong—skim it well and it is fit for use.

Your beef or tongues should be put in cold water and remain 24 hours, then drained for an hour or two, previous to being put into the pickle.

Beef tongues, veal, or mutton for smoking should not remain longer in pickle than ten days.

This pickle need not be boiled, (which operation tends to harden the meat) but will remain perfectly sweet till spring, when, after your beef is used or taken out, it will be found the very best in which to cure shad, giving them a delicious flavor, and fine red colour throughout.

This receipt is offered with confidence to the Editor of the Farmer, as one of the very best ever adopted. And it is the opinion of the writer, will answer fully as well for pork, with the exception that the latter should not be soaked in water.—*American Farmer.*

MANNER OF PRESERVING EGGS PERFECTLY FRESH FOR TWELVE MONTHS.

Having provided small casks like oyster barrels, fill them with fresh laid eggs, then pour into each cask, the head being taken out, as much cold thick lime water as will fill up all the void space between the eggs, and likewise completely cover them. The thicker the lime water is the better, provided it will fill up all the interstices, and be liquid on the top of the cask. This done, lay on the head of the cask lightly. No farther care is necessary, than merely to prevent the lime from growing too hard, by adding occasionally a little common water on the surface, should the lime appear to be growing hard, and keeping the casks from heat and frost.

The eggs, when taken out for use, are to be washed from the adhering lime in a little cold water, when they will have the appearance and qualities of fresh laid eggs, the lime preserving them from shrinking or putridity.—*ibid.*

TO PRESERVE HAMS, OR OTHER SMOKED MEAT, THRO' THE SUMMER.*

Wrap up the meat in tow, of either flax or hemp, after shaking out the loose shives, and pack it in a tierce or barrel, taking care that there be next the tierce and between every piece of meat, a thick layer of tow packed in as close as possible; then set it away in a dry cellar or upper room. It is enough that the barrel or tierce be sufficient to keep the mice out, as no fly or insect will enter the tow.

Tow and flax are such bad conductors of heat, that a piece of ice will be preserved a long time wrapped up in tow. Cut straw also answers extremely well to keep hams in. Ashes are apt to communicate a bad taste to meat. Care should be taken to prevent the flies from having access to the meat before being packed away.—*Archives of Useful Knowledge.*

* This has been tried and found to answer well, says the Editor of the Albany County Agricultural Tracts.

PRESERVATION OF BUTTER.

One part of loaf sugar, one part refined salt petre, two parts of the best pure salt are to be pulverized together and kept for use; one oz. of this is to be mixed thoroughly with 16 oz. of the butter as soon as it is freed from the butter milk; it is then to be put into a close and perfectly clean dry vessel, from which the air is to be carefully excluded, and it will remain good for many years.—*Johnson's Animal Chemistry.*

CATTLE SHOWS, &c.

BROOKLYN, (Con.) October 21.

Windham County Cattle Show.

The Windham county Agricultural Society held its Cattle Show and Fair, in this village, Wednesday the 9th of October inst.—The first exhibition was the ploughing match, which began at 9 o'clock. Nine teams were entered; the quantity allotted to each team, was one eighth of an acre. This being the first exhibition of the kind in the county, excited great interest, and afforded much satisfaction, to both ladies and gentlemen, assembled to witness it. The team of Mr. Chaffee, of Canterbury, performed its work in the short space of twelve and a half minutes; Mr. Gregg's team of Pomfret, in fourteen minutes; the team of Mr. Spencer, of Hampton, being one pair of two years old, and one pair of yearling steers, in eighteen and a half minutes, in a handsome manner. All the teams showed they were managed in a masterly style, in the performance of their work, and the whole was executed much to the credit of the owners. After the ploughing match, the society assembled in the meeting-house. Prayers by the Rev. Mr. Fowler, of Plainfield, a member of the society. An address was delivered by Elisha B. Perkins, Esq. of Pomfret, much to his credit, and to the satisfaction of the Society. After the exercises at the meeting-house, the society, honoured by delegates from Rhode-Island, and honourary members of the society, proceeded to view the animals and articles offered at the exhibition; and at 2 o'clock, partook of an excellent dinner, provided by capt. Mather.

Mr. Erasmus Stebbins, received premiums for the best pieces of broadcloth and cassimere.

A very fine team of about 100 oxen, from Woodstock paraded through the street, and did much credit to the enterprising spirit of the farmers of that town.

The annual meeting of the Rockingham, (N. H.) Agricultural Society was holden at Exeter on the 16th and 17th of Oct. By a vote of the Society last year, the custom of meeting in the spring for the choice of Officers, &c. was abolished, and it therefore became necessary to appropriate two days, instead of one, to the business of the Society at its fall meeting. The

recent anniversary being the first under the new arrangement, it was not to be expected that the exercises and exhibitions could be divided between the two days with so much convenience and satisfaction to the public, as can be done hereafter with the aid of experience. These complaints will doubtless be obviated at the next anniversary.

The exercises of the morning were followed by dinner served up for the Society on the lower floor of the Court House, under the direction of Col. Burley, in his usual style of elegance and abundance. The beautiful and appropriate decorations given for the occasion to this spacious room attracted crowds of admiring visiters, and gave an acceptable pledge of the welcome, which the Society will ever find among the citizens of Exeter.

Among the most prominent articles of manufacture were the specimens of Carpeting offered by Mr. Theodore Moses and Miss Martha Gilman, of Exeter, and Mr. Kent, of Chester. The filling in that of Mr. Moses was wholly of woollen rags; the beauty of the piece attracted much praise. The hearth rug offered by Miss Sophia Smith of Exeter, was much admired, and was highly creditable to her taste and industry. A pair of Morocco Shoes were exhibited by Mr. Lewis Wentworth of Exeter, made from the skin of a sheep, *which was living ten hours and thirteen minutes* before their exhibition in the Court House. They appeared to be well and skilfully manufactured. A beautiful grass indispensable, and a handsome basket, made of musk-melon seeds, were exhibited by a *young lady of Portsmouth;* and a neat silk purse, knit by Mrs. Brown of Kensington, *who has been blind seventy-seven years.* Twenty apples, exhibited by Capt. Nathaniel Paul, of New Market, weighed 21 1-4 pounds; they were natural fruit from one tree, and of good flavor. Two apples were exhibited by that skilful horticulturist, Nathaniel Adams, Esq. of Portsmouth, being the first and second growth of a tree in his garden. The apple of the first growth was of a large size, and that of the second weighed more than six ounces. Some apples, in fine preservation, the growth of 1820, were exhibited by Rev. Isaac Hurd, of Exeter.

Gen. Samuel M. Richardson was chosen President, and Gen. Elias H. Derby, V. President.

The thanks of the Society were unanimously voted to the Hon. Nathaniel Gilman, (who had held the office of President the three last years) for his faithful, assiduous and valuable services. The Rev. Joel Abbot was appointed Orator for the next anniversary, and Nathaniel A. Haven, Jr. Esq. of Portsmouth, was chosen for 1824, who will deliver the Address at the next anniversary, in case of a failure on the part of Mr. Abbot.

The second day was devoted to the exhibition of cattle, the trial of the strength of the working oxen, the auctions, and the reports of the different examining committees. A very interesting report was read before the Society in the morning, by Ichabod Bartlett, Esq. Chairman of the Committee on *butter, cheese, wine* and *cider.* This report will be published at length.

Among the animals, most worthy of notice, was a fine imported cow, owned and exhibited by Col. Joshua W. Pierce, of Portsmouth, very remarkable for extraordinary size and beauty. Her girth was over seven feet; her weight probably exceeded fifteen hundred pounds; and all the distinguishing marks of a good cow were seen in full perfection in this beautiful animal. The bull of Gen. Derby, of the Holsten and English breed, and the bull of the Whidden breed owned by Captain Nathaniel Gilman, of Exeter, well entitled their owners to the premiums which they received. The yoke of fat oxen (weighing 2200 lbs. each,) the cow and heifers, of the improved short horned breed, exhibited by Capt. Nathaniel Gilman, the fine bull of Mr. John Thompson, of Stratham, a yoke of uncommonly large two year old bulls, of Seth R. Shackford, Esq. of New Market, the large calf of John Moulton, of Exeter, the bull calf of Mr. Wells, of Hamptonfalls, remarkable for its rapid growth and fine shape, and a yoke of Steers of Henry Butler, Esq. of Nottingham, were very much admired. A team of several yokes of strong and beautiful working oxen, from Kensington, gave interest to the exhibition, and reflected great credit upon that town, distinguished as it has long been for its excellent farmers. The sow and pigs exhibited by Col. Walker, of Exeter; the swine by John Gordon, of Exeter; and the quarter blooded sow of the Cobbet breed, owned by Col. Chadwick; and the boar of the same breed of William Lane, of Exeter, remarkable for the shortness of its legs and snout, and its depth and thickness, were much commended by the committee. Several excellent Colts were exhibited; and the Stud Horse of Jonathan Clark, Esq. of Northwood, was pronounced worthy of premium.

In the *trial of strength*, the yoke of working oxen, (five years old,) drew the load, which weighed upwards of *sixty three hundred*, up Spring street, with apparent ease. They were immediately put upon the drafts facing the load, and managed it well. The yoke of working oxen, owned by Mr. Samuel French, of Nottingham, drew up the same load, and exhibited uncommon strength and good training. The load was drawn up by the oxen of Samuel Dearborn, and Dearborn Blake, Esq'rs. of Kensington.

This part of the exhibition was followed by a trial of the *strength of the purse*, on the floor of the Court House. The butter of Bradbury Robinson, of Greenland, which obtained the first premium, was purchased at 47 cents per pound, for that warm and steady friend to the agricultural interest, Capt. Morris of the U. S. Navy; and the lot of Biley L. Thing, of Brentwood, which obtained the second premium, was sold for 42 cents a pound, to James Rundlett, Esq. of Portsmouth.

Abridged from the New Hampshire Patriot.

THE FARMER.

BOSTON:—SATURDAY, NOV. 2, 1822.

ON SAVING AND MAKING THE MOST OF MANURE.

(*Continued from page 87.*)

In our former observations on this subject, we protested against the uncleanly, unthrifty and unhealthy practice of permitting decaying vegetable or animal substances to waste away on any part of a farmer's lands or tenements, without the application of earth, peat, or some similar matter to absorb the steam, effluvia, or gaseous products of putrefaction. Those products, we observed, though exceedingly noxious, as well as offensive to man and beast, are healthy and nourishing to plants. The farmer, therefore, who arrests the rank vapors which emanate from decaying animal and vegetable matter, and instead of permitting them to pass into, and contaminate the air he breathes, treasures up the invisible particles, with which they are laden, and applies them to feed useful vegetables, causes the air to be healthy, and his plants to be thrifty by the same means. "If we consider the subject of manure, we shall perceive one of the most striking beauties and benefits of divine ordination, and of that wisdom, with which we are blessed in a thousand ways, without knowing it. This very substance, had it been useless, must have accumulated in heaps, intolerably noisome, and perpetually pestilential; but by the blessing of providence, it is every man's interest to remove those otherwise increasing mountains of filth, and by decomposition, in various ways, in a great measure concealed from us, it gives increase to our fields, and adds to the means of industry, and the reward of the husbandman."*

Those who cultivate the ground do not always act the wise and provident part supposed by Lord Erskine in the sentence just quoted. On the contrary, farmers too often suffer manure to accumulate and waste in heaps, generating effluvia "intolerably noisome, and perpetually pestilential," without fear of fever or famine, both of which are courted by such conduct. Not only dung is allowed to waste its richness on the tainted air, but straw, and other litter is suffered to grow mouldy and consume by what is sometimes called the dry-rot, (both of which might be prevented, or their bed effects obviated, by covering or mixing them with a suitable quantity of earth) but dead animals, the contents of privies, the emptyings of sinks, spoiled provisions, the refuse of the dairy, the pantry, and the cellar, are allowed to mingle their odors in nauseating and deleterious profusion. Sometimes the highway is rendered very delectable in consequence of a dead horse, sheep, dog or cat undergoing the process of decomposition in a situation most correctly calculated for the accommodation of passengers, and to afford the farmer and his family the full fruition of their fragrance. Some farmers hang dead lambs, cats, dogs, &c. in the forks of apple trees or other trees, or throw them on hovels or stumps at some elevation from the ground, to give the pestilential emanations a good chance to diffuse themselves, without coming in contact with the earth, which might convert them from poison for men and animals into food for vegetables. If, however, such animal remains are deposited in a barn yard or on a manure heap, (which seldoms happens among good old fashioned farmers) they are suffered to lie and rot on the surface, offending the senses and injuring the health perhaps of a whole village. Practices of this kind are reproved by Sir Humphrey Davy, who says, "Horses, dogs, sheep, deer, and other quadrupeds that have died accidentally, or of diseases, after their skins are separated, are often suffered to remain exposed to the air, or immersed in water, till they are destroyed by birds or beasts of prey, or entirely decomposed; and in this case most of their organizable matter is lost from the land in which they lie, and a considerable portion of it employed in giving out noxious gases to the atmosphere.

"By covering dead animals with five or six times their bulk of soil, mixed with one part of lime, and suffering them to remain for a few months, their decomposition would impregnate the soil with soluble matters, so as to render it an excellent manure; and by

* *Extract from a speech of Lord Erskine, delivered at one of the annual Sheep-shearings, at Holkham, in England.*

mixing a little fresh quick lime with it, at the time of its removal, the disagreeable effluvia will be in a great measure destroyed; and it might be employed in the same way as any other manure to crops."*

If however quick lime cannot readily be obtained to accelerate the conversion of dead animals into manure, it is probable (though we do not assert it as fact) that covering the carcasses with a pretty thick coat of unleached ashes, and placing over all a quantity of earth or earthy substance, would hasten decomposition, and secure the gases resulting from putrescence. Earth, alone, however, will answer a valuable purpose, and *in time* the largest animal will be decomposed, if buried in nothing but common soil; and the latter will serve as a store house, and preserve the products of the former for the use of the crop to which it may be applied.

Not only the carcases of animals, but their excrements and urine are rendered of little value by long exposure to the air. Indeed every moment of such exposure robs them of some part of their fertility, as well as contaminates the atmosphere. "He who is within the sphere of the scent of a dung-hill, (says the celebrated Arthur Young) smells that which his crop would have eaten if he would have permitted it. Instead of manuring the land he manures the atmosphere; and before his dung-hill is finished he has manured another parish, perhaps another county." As few exhalations as possible ought to be suffered to rise from the excrements of animals. Fresh manure should be kept as carefully from the sun and rain as grass which has been cut for hay. When cattle have been yarded over night it would be well to throw their evacuations into small heaps or beds, and cover them at least with a sufficient quantity of earth to prevent fermentation, or absorb its products. This would cost but little labor, and would be so neat and healthy as well as economical, that we are confident farmers will adopt it.

Mr. Young says, "The first object which I have attended to for many years, has been to spread a layer of earth over the surface of the yard; peat is the best for this purpose, with a portion of marle or chalk; in the want of this turf, rich mould, the scourings of ditches and some marle or chalk; but not so much of either as to form so solid a bed as to prevent the penetration of the fluids, which should enter sufficiently to give a black color to the whole. There is no necessity for removing this every time the dung is removed. As there are no advantages from fermentation in the mass till carried on to the land, no attention should be paid to prevent treading and pressing it. But as it is beneficial to have the whole as equal as possible, it is very useful that the stable dung should be spread over the surface, and not left to accumulate at the door. The same observation is applicable to the riddance of the fat bullock stalls and the hog sties."

It is the fashion among our farmers, and was formerly in vogue in Great Britain, to turn over and mix barn yard manure several times before it was carried to the field. This practice however is exploded among the best informed cultivators. Mr. A. Young says, "No turning, or mixing, or stirring; but if circumstances of the richness, or quantity, or weather, have occasioned too much fermentation, or this is suspected, scatter every now and then a quantity of the same earth over the surface with which the yard was bedded, but not in layers. This may be so proportioned as to keep the mass from too much fermentation."

The author of "Letters of Agricola," says, "Earth is a powerful absorber of all the gases which arise from putrefaction. The earth possesses the property not only of retaining the putrid steams which are formed from the dung of decomposing bodies within itself, but also of attracting the effluvia when floating in the air. The salubrity of the country depends on this latter quality; as the practice of burying the dung under the furrow is founded on the former. The stench proceeding from the dissolution of organized matter never rises through the ground to assail the nostrils, although it is sufficiently offensive from bodies, corrupting in air or water. A strongly dunged field, after being ploughed, sown and harrowed, sends forth a healthful and refreshing smell—a proof that all the putrid vapors, which otherwise would annoy us, are absorbed and retained for the nutrition of the crop. It is on this account that the poorest earth can be enriched in a very high degree by mere exposure to the gases of putrefaction. Put a layer of common soil along the top of a fermenting dung-hill from 12 to 18 inches thick, and allow it to remain there while the process is carrying on with activity; and afterwards separate it carefully from the heap, and it will have been impregnated with the most fertilizing virtues. The composts, which of late have attracted so universal attention, and occupied so large a space in all agricultural publications, originated in the discovery of this absorbing power of the earth, and in the application of it to the most beneficial of purposes. A skilful agriculturist would no more think of allowing a violent fermentation to be going on in his dung-hill unmixed with earth or other matter, to fix and secure the gaseous elements, than the distiller would suffer his apparatus to be set at work without surmounting his still with the worm to cool and condense the rarefied spirit, which ascends in evaporation. In both, the most precious matter is that which assumes the æriform state; and to behold it escaping with unconcerned indifference, is a demonstration of the most profound ignorance."

(TO BE CONTINUED.)

* *Agricultural Chemistry.*

The *Hampshire, Franklin and Hampden Agricultural Society* held their annual Cattle Show, &c. at North Hampton, on Wednesday and Thursday of last week. The exhibitions (says the Gazette) were more interesting than on any preceding anniversary, and attracted a greater concourse of people. An appropriate and excellent Address was delivered by Mr. MILLS, of Southwick. A more particular account of this exhibition will be given next week.

Grand Agricultural Speculation.—It is stated as a fact in the Poughkeepsie Journal, that A. S. Pell, Esq. of Hyde Park, N. Y. has growing on his farm upwards of *sixty thousand Apple trees*, nearly fit to set out. He intends to transplant the trees on about seven hundred acres of rich land in Ulster county, and to raise the fruit, which is chiefly of the kind called the Newton Pippen, for exportation.

At the Brighton (Mass.) exhibition, a Straw Hat was shown, manufactured in Vermont, and thought to be finer than any ever imported. It was sold for *eighty dollars*. The fair manufacturer was more fortunate than a Miss Nancy Bradley, of Ballstown, (N. Y.) who exhibited at the Saratoga Fair, a Straw Hat, on which she had spent three months. The Saratoga bonnet was equal in quality to No. 58 of Leghorn hats, which sell from $60 to $70; but Miss B. only received 13 dollars in premiums from the Agricultural Societies, and 25 dollars from the purchase of her bonnet.—*Phil. Union.*

The National Intelligencer intimates that a piratical establishment has lately been founded in Porto Rico, and states that among the persons embarked in it are several respectable American citizens, and youths of good family, who are thus setting not only the laws of their own country, but the law of nations at defiance. "We have some curious particulars," says the Intelligencer, "of this expedition, which for the present we reserve."

We have nothing new respecting the Greeks and Turks, which can be depended on. There is reason to believe that the former are gaining ground, and to hope that they will at length be emancipated from Turkish thraldom.

It is said that the Congress of Sovereigns will not interfere in the affairs of Spain. The calling together of an Extraordinary Cortes in Spain has been decided on. General Elio has been condemned to death and executed for having formed a conspiracy against the constitutional government.

In France, several editors of newspapers have been convicted of giving false and seditious narratives of the trials of conspirators at Rochelle. Some have been punished by fine and imprisonment.

Health of New York.—On Saturday last, the Board of Health in New York published a note, congratulating their fellow citizens that there was no new case, nor a death of yellow fever to be reported on that day. They recommend to their fellow citizens that previous to occupying their houses they be well ventilated, cleansed, white-washed, &c. That quick lime be strewed in the cellars, yards and privies, fires lighted in the apartments, and acid fumigations made use of.

In *New Orleans* Yellow Fever reigns in frightful malignity. A letter to the Editor of a Baltimore paper dated Sept. 26, states that "of a population liable to take it, not exceeding 700, exclusive of negroes, the daily deaths have averaged 20," and the day before the date of the letter the deaths were 31.

As a proof of the utter desolation which prevailed in the infected district, the N. Y. Statesman mentions that beans have been plucked from vines growing in Liberty-street, and water-melons from two to three inches long, from vines which grew in Greenwich-street! They are the product of seed thrown out by the inhabitants before they were driven thence by pestilence, and which took root in the scanty soil between the paving stones.

Mr. S. Rogers of New-York, has equalled the British Manufacturer in weaving a shirt whole and perfect.

Thanksgiving Day.—This religious festival is to be celebrated in this State, Maine and Vermont, on Thursday the 5th of December next. In New-Hampshire and Connecticut, on Thursday the 28th of November.

It is said there will not be more than 5000 hds. sugar made in Louisiana the present season. 10 or 12000 bales old cotton remained.

BROWN'S PATENT VERTICAL FAMILY SPINNER.

FOR SALE, at the Agricultural Warehouse, in Chambers No. 20, Merchant's Row, (opposite the East end of the Old Market)—a number of

Brown's Patent Family Wool Spinners,

which are found on trial to be one of the most useful domestic implements that have ever been invented for that purpose, being of so simple and easy construction that a girl of the age of 15 can well do the work of six persons in spinning, and so compact in its form as not to require so much space as a common family spinning wheel. The advantage of this machine over and above the common mode of family spinning, is at once tested in a few minutes operation with the machine; it at once discovers its immense saving of labor, its accuracy in spinning a good thread, and the quantity it will spin. It requires no further examination to judge of its utility than to see it operate. It is afforded at so low a price as to bring it in common use to every practical farmer, and is well calculated for the employment of the inmates of our common town's poor houses.—Any number of Machines can be furnished at the shortest notice, and warranted. Oct. 26.

NATHANIEL DEARBORN...*ENGRAVER,*

HAS removed to Market Street, No. 33, over Mr. Bailey's Store, West corner building of the stone steps passage way.

☞ Orders for Engraving and Printing Address or Visiting Cards; and engravings on Wood, Brass, or other metals solicited. Door Plates of any style and price, of Brass, Silver or Silver-plated. Nov. 2.

BY T. G. FESSENDEN.

"*Better is a dinner of herbs where love is, than a stalled ox and hatred therewith.*"

Love relishes the coarsest fare,
And makes the bitterest morsel sweet;
But hatred taints the viands rare
Of those who exquisitely eat.

If anger, envy, discontent,
Lower o'er your delicate repast,
You'd better in the woods kept lent,
With nought but nuts to break your fast.

Sooner than sit at meat with pests,
Where smother'd hate torments the mind,
Let hungry Harpies* be your guests,
Like those that with the Trojan's din'd.

On beggars' fragments dine and sup,
Your beverage draw from Sodom's lake,
Or seek from Tantalus' cup,†
Intolerable thirst to slake.

The poorest pot-luck, serv'd with smiles,
And eaten with a thankful heart,
Is better than your roasts and broils,
And all French cookery can impart.

Thus Daniel, and his friends of yore,
Who made on pulse their simple feast,
For comeliness were rank'd before
The pamper'd minions of the East.

For love can relish coarsest fare,
And make the bitterest morsel sweet;
But hatred taints the viands rare
Of those who exquisitely eat.

* Harpies were winged monsters of heathen mythology, who invited themselves to a family dinner with the Trojans. Their intrusion is thus described by Virgil:

Tum litore curvo
Extruimusque toros dapibusque epulamur opimis,
At subitæ horrifico lapsu de montibus adsunt
Harpyiæ et magnis quatiunt clangoribus alas,
Diripiuntque dapes contactuque omnia fœdant,
Immundo.

Then on the winding shore the tables plac'd,
We sate indulging in the rich repast;
When from the mountains, terrible to view,
On sounding wings the monster-harpies flew,
They taint the banquet with their touch abhorr'd,
Or snatch the smoking viands from the board.
PITT.

† The Cup of Tantalus is a philosophical contrivance, so denominated from a character in fabulous history, called Tantalus, and said to be king of Phrygia. This personage was condemned by Jupiter to suffer perpetual hunger and thirst amidst a profusion of delicacies, which always receded when attempted to be applied to his lips. To imitate this punishment a cup is made with a syphon fixed inside in such a manner that when nearly filled with any liquid, if one inclines it a little for the purpose of drinking, the syphon draws off the contents; which appear to recede from the lips, as if in mockery of the person attempting to drink from the *Cup of Tantalus*.

From the Old Colony Memorial.

In Rees' Cyclopedia, under the article *Cock Chaffer*, is a perfect description of the insect which has committed such unprecedented devastation on the vegetable productions of the earth in a greater or less degree through this county. "Cock Chaffer, the *Scarabœus melolontha* of Linneus, and *melolontha vulgaris* of Fabricius.* The color is testaceous brown, with the thorax hairy; tail inflected, and a triangular white spot at each incisure of the abdomen.

* When in the beetle state.

"Inhabits the northern parts of Europe, and is highly injurious to agriculture.† The larva is soft and gray, with the head and legs protected by a shelly covering of a yellow brown color. While in the larva state, which continues for the space of three years,‡ it devours the roots, corn, and other vegetables. This mischievous creature subsists also on leaves and tender buds of trees, and is from that circumstance denominated the *tree-beetle*."

"They are eagerly sought after, and devoured by crows, rooks, and other birds, as well as animals; it is the larva of this insect that is so frequently turned up in ploughing, and in quest of which the crows are often seen following the track of the ploughshares."§

In Willich's Domestic Encyclopedia, under the same article (Cock Chaffer) is a more detailed and minute description of the insect, agreeing in all the essential points with the preceding; so that to my mind, the insect that has annoyed us so extensively, is identified with the larva of the Cock Chaffer; and what remains for us, is, I think, to endeavor to devise the means to destroy the enemy, or so to counteract its ravages, in some degree to render it innoxious.

In the first place, I will suggest the policy of ceasing our hostility to the crow, and the rest of the feathered tribe which subsist on the larva, and grubs of such insects as prey on our fields; and even to extend to them the protection of legislative provision. It is true they are an impudent and mischievous race, and are frequently trespassers on the cultivated fields of the husbandman; but their mischief is limited to a few days after planting, and seldom extends to the ripe corn, as they have at that time other means of subsisting; and should they be driven to resort to our corn fields when nearly ripe for the harvest, is it not far easier to guard against the ravages of an enemy, tangible and that announces his approach by the sound of trumpet, than against the one which is invisible, is preying at the roots of all our hopes, of all our means of subsistence, and in such "innumerable multitudes as no man can number."

The Editor of the Cyclopedia remarks, "the crow feeds on grain and sometimes trespasses on cultivated fields; but his *good services* overbalance those little depredations, in the extirpation of the maggot of the *Chaffer Beetle*, which feeding at the roots of the corn, would oftentimes destroy whole crops, were *they* not destroyed by these *useful birds*." It is also remarked by Mr. Marshal, in his Rural Economy of Norfolk, "that the method of frightening rooks in practice there, is simply to stick up a tall bough in the field infested, and to fire a gun near the place; this simple expedient seldom fails of being effectual; *they being seldom shot at in Norfolk;* where a notion prevails, that rooks *are essentially useful to the farmer* in picking up worms and grubs, especially the *grub of the Cock Chaffer*, which it is believed is frequently injurious to the meadows. This opinion also prevails in other districts, as they are often seen to follow the plough close, to pick up such grubs."

In confirmation of this opinion, I will state the fact, that this season, since the prevalence of this grub, there are now in this town, (at a small distance from the habitation of men) acres that were in the state of sward the last spring, which are now so turned up by the crows and skunks, that they have the appearance as tho' they had been a pasture for hogs.

The second expedient I will suggest is that of making free use of the plough; although it cannot be anticipated as a security, it will not be without its use. The Cock Chaffer, guided by instinct, avoids the ploughed ground to deposit its eggs, and has recourse to the sward as affording greater security for them and more certain subsistence for the larva; in proof of this we observe, that the crops of corn and potatoes on those fields which were in tilth the last season, and more especially those which had been two years under cultivation, have received little or no injury, while those that were broken up from the sward are nearly or quite destroyed. I am aware this can be only an expedient to secure a crop, but not a mean of extirpation of the insect; it is impracticable to plough to the extent of their ravages; but naked as our fields must be the next season, necessity and prudence will compel the farmer to cultivate more than he would have done under other circumstances; therefore any field that is destined for cultivation the ensuing season, let it be ploughed this autumn—it will open to the view of the bird of prey many of the grubs that are now the tenants of the soil—it will prevent a new deposit of eggs—and perhaps interrupt the whole economy of their system, and disconcert their plan of security, as they appear to be a dull and heavy moulded race, incapable of exertion or expedient; and should the plough effect little or nothing as regards the destruction of the insect, the farmer does not lose his labor or expense; he will find himself amply rewarded in the amelioration of the soil, and in the abridgment of his labor in that season when he is fully occupied. PLYMOTHEUS.

† This applies to the early period of its existence; as it increases in size it becomes whiter, and when fully grown is perfectly white, or yellowish white, except its head and legs which retain their primitive color, as also a small spot on each side at each incision of the abdomen.

‡ In the Domestic Encyclopedia the author says—"more than four years"—again, "in the latter end of May they burst from the earth after having lived from four to five years under ground."

§ This applies in England where they are in a degree cherished, and are so tame as to build on the ornamental trees of halls and seats; in this country they are a persecuted race, and are rendered so shy of man that they can rarely be approached so as to be shot.

P. S.—Those of the larva which are half grown or less have disappeared, probably gone deeper into the ground; the full grown remain stationary—just under the sod, are very heavy and inactive—probably about changing to the chrysalis state; and when they emerge from that state I presume they will assume neither the form or costume of the "moth or butterfly," but that of the beetle. P.

In passing through the north part of this town, the other day, we observed a chesnut tree, on which there were ripe chesnuts, and the tree was in blossom for a second growth. On noticing this fact, an old gentleman in the company stated that he saw fresh strawberries in his meadow a day or two before.

Lake Guardian.

The difficulties formerly existing in crossing the Connecticut, at Saybrook, are now removed by the operation of a safe and commodious Team Boat.